IEEE P802.15
Wireless Personal Area Networks

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Title	**Coexistence Modeling Overview**
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	The is proposed text for clauses 5.2 of the Recommended Practice Document
Abstract	[]
Purpose	[]
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Clause 5.2 Coexistence Modeling Overview

The coexistence modeling approach used is based on detailed simulation models for the RF channel, the MAC and PHY layers developed in OPNET [1] and ANSI C, respectively.
The PHY layer models for the IEEE 802.15.1 and IEEE 802.11 transceivers are based on models developed in ANSI C. The MAC layer models are interfaced to these PHY models, and the integrated MAC and PHY simulation models constitute an evaluation framework that is critical to studying the various intricate effects between the MAC and PHY layers. Although interference is typically associated with the RF channel modeling and measured at the PHY layer, it can significantly impact the performance of higher layer applications and the MAC layer. Similarly, changes in the behavior of the MAC layer protocol and the associated data traffic distribution could play an important factor in the interference scenario and affect the overall system performance.

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[1] OPNET is a Trademark of OPNET Technologies Inc.